

No 124

1827

Dec. 2^d.

309 Walnut

Secale Cornutum

Dan. Bedinger

1891

August 1891

Paid March 1827

W. E. H.

An

Essay on the Properties

of the

Local Coromund;

or

Biggs.

By Daniel Bedinger

of Virginia.

1826.

Spice Shop 1877
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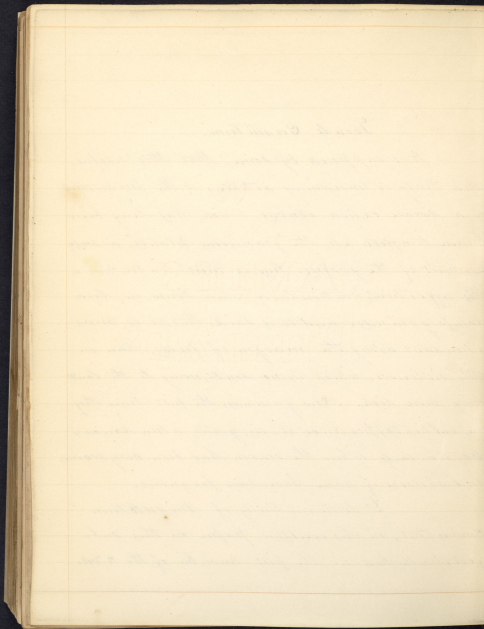
H. 2.

do.

Iscala Caninum.

It is supposed by some, that this useful, and truly extraordinary article, is the production of a disease called clonus, which has long been known to affect all the "grain-bearing plants," as well as, most of the grasses. Rye is most liable to this affection, particularly when sown in low, damp grounds: and it is said, that, it is more abundant along the margin of fields, than in their interiors, which is, no doubt, owing to the lands being more rich. New grounds, the first time they are cultivated, produce it in great abundance, particularly when the season has been very warm, and showers of rain have been frequent.

Dr William Gully of Middleton Comestant, in his excellent paper on this subject, published in the first number of the 2^d Vol.

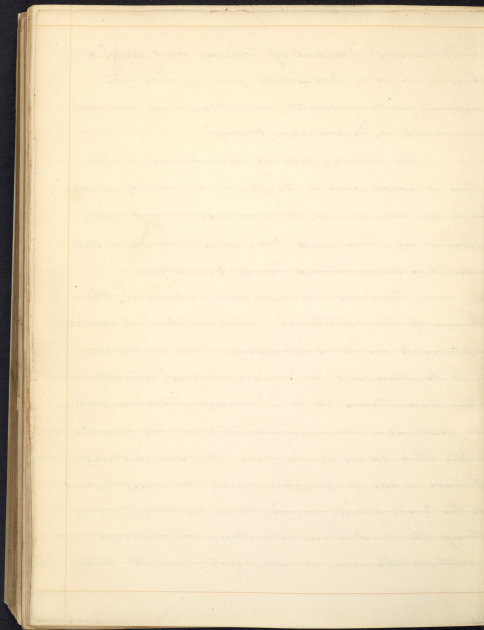


of Lillinius' "Journal of Sciences and Arts," be-
lieves it to be a parasitic fungus, like the
different sorts of blight, smut &c. and has de-
nominated it, "*Lelethium Clavus*."

The French, from its resemblance to the
spur of a cock, call it *Épi de blé*. In England, as well
as in our own country, it is called, *Horned eye*,
Spurred eye, *Ham-seed* &c. whilst, by medical
men, it is denominated *Local Eczematine*.

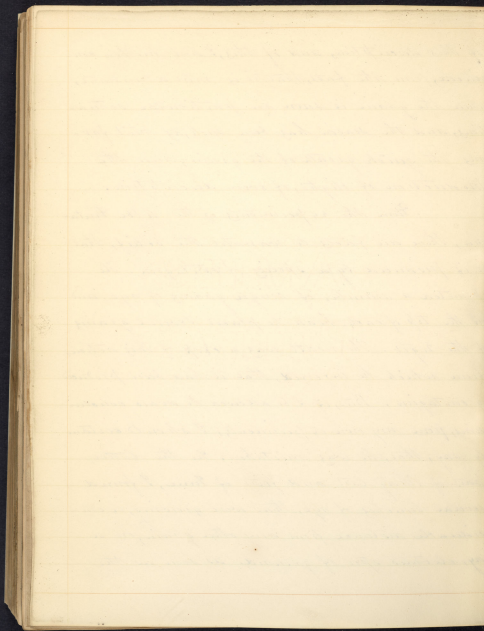
There are numerous conjectures, as ^{to} the
origin of this substance, most of them however,
appear to me to be erroneous. Some suppose
it to be produced by "small larvae," whilst
others have traced it to a "species of fermentation,"
at least, as a preliminary step in the plant.

But there seems to me, from the examinations
I have made of the grain which produces it, and
of the *Épi* which grows, to be no sort of its
being the production of a species of blight, or
smut, which, more or less, affects all the plants



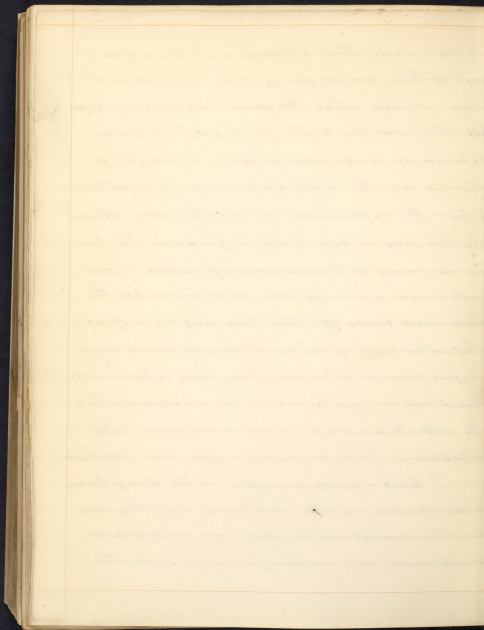
of this description, and of this, I am further con-
vinced, from the fact, that it is most abundant,
when the grain is sown in particular situa-
tions, and the season has been such, as most favo-
rable the quick growth of the grain, and the
production of blight, of every description.

From the experiments of the late Fontar-
na, there are facts to warrant the belief, that
it is produced by a species of contagion. He
planted a number of single grains of rye, and
on the top of each, head he placed several grains
of the rye. The result was a crop of this article,
from which he inferred, that it had been produced
by contagion. But, if I be allowed to draw conclu-
sions, from my own experiments, I should certain-
ly say, that, he was mistaken. In the latter
part of May last and first of June, I found
several bunches of rye, that were growing, a con-
siderable distance from any other grain, on a
dry, elevated spot of ground. as soon as the



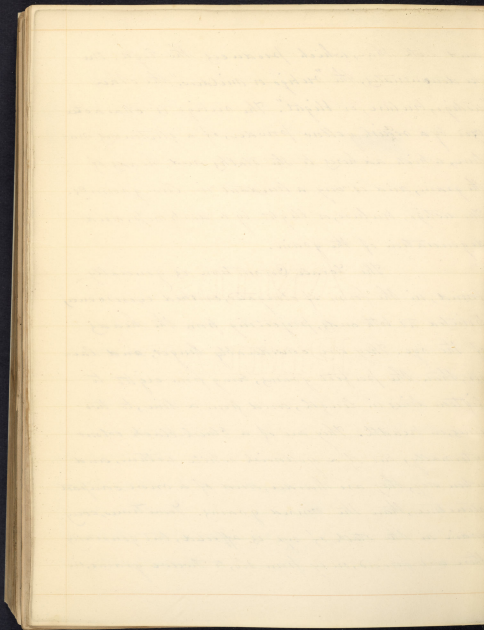
heads made their appearance, I placed on each of them, several grains of the Ergot, and let them remain until the grain was perfectly ripe, but there was no Ergot produced. The grain ripened as usual, was perfectly sound, and showed not the least appearance of infection. I tried the experiment in another way. When the eye was in full bloom, I powdered the Ergot as finely as I could, and sprinkled it over each head of the eye every morning, until the bloom had fallen off. Here there was one crop of this article, the grain as before, was sound and perfect, when it ripened. From these experiments then, I was reasonably led to the conclusion, that the Abbe Fontana, attributed to contagion, what situation, or perhaps season, might have produced.

Lissot observes, in a letter to Sir George Baker, when speaking of this substance, that, there are no other diseases which affect eye and wheat, which have been confounded with each other,

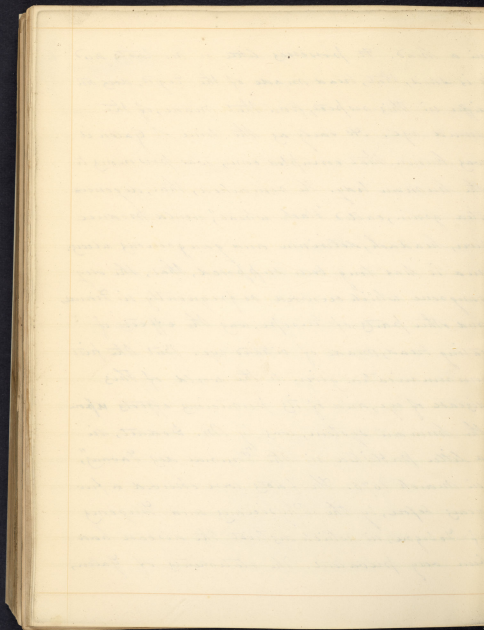


and with that, which produces the Eign. One
he denominates, the "rustigo or mildew," the other
"rustigo, brulure, or blight". The rustigo is character-
ized by a reddish yellow powder, of a glutinous na-
ture, which adheres to the stalks and heads of
the grain, and is very abundant in low grounds.
The rustigo, brulure, or blight by a dark red, and a
degeneration of the grain.

The Zeale Cornworm is generally
found, in the form of elongated, erect, excrecences,
pointed at both ends, projecting from the heads
of the eye. They are considerably longer, and lar-
ger, than the perfect grains, being from eight to
fifteen lines in length, and from a line, to two
lines, in breadth. They are of a bluish-black colour
externally, but of a yellowish white within, and
when dry, they are harder, and of a more compact
structure, than the sound grains. Sometimes, every
grain in the stalk of eye is affected, but generally
there are found, only from six, to twelve grains, in

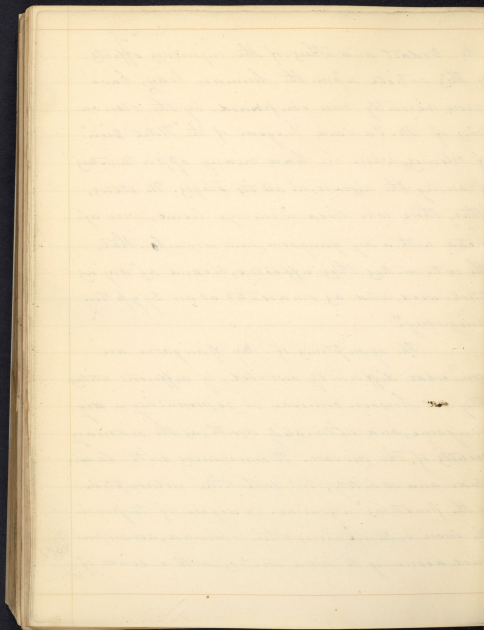


in a bread. It possesses little or no taste, and
it is said, that, bread made of the Ergle, does not
suffer in this respect, from that made, of the
sound eye. As early as the time of Galen it
was known, that corrupted corn, was poisonous to
the human body. He remarked, that, degenerate
wheat grain, called "black wheat", would produce
fever, headache, delirium and gangrenous ulcers,
and it has long been supposed, that, the very
gangrene which occurred so frequently in France,
and other parts of Europe, was the effects of
eating bread, made of vitiated eye. But the first
communication given to the world of this
disease of eye, and of its pernicious effects upon
the human system, was by Mr. Dodart, in
a letter published in the "Journal des Savans",
in March 1676. The facts were observed a few
years before, by the Physicians and Surgeons
of Cologne, in which district the disease had
been very prevalent. The statements of Galen,



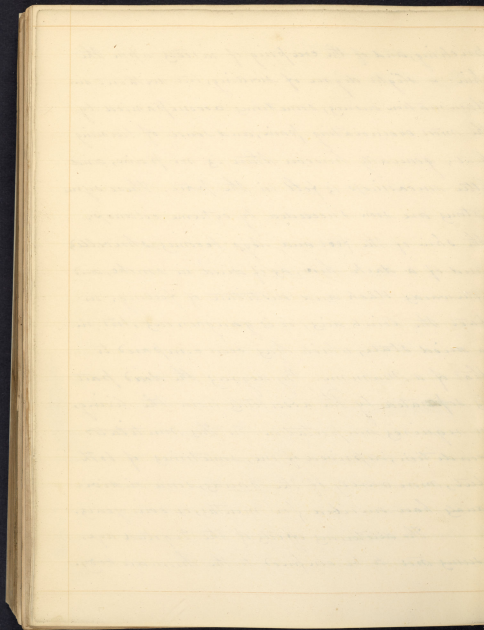
Mr. Dardart and others of the injurious effects of this article upon the human body, have more recently been confirmed, by the observations of Mr. Javiana Surgeon of the "Hotel Dieu" of Orleans, when he had many opportunities of seeing the disease, in all its stages. He states, that, those who lived upon dry bread, were affected with a dry gangrene, and remarks, that, the extremities thus affected, became as "dry as touch-wood, and as emaciated as an Egyptian mummy."

The symptoms of Dry Gangrene are somewhat differently described, by different writers. They all however coincide in representing a dry gangrene, and ultimately death, as the ordinary result of the disease. It commences with lassitude and debility, but with little interruption of the functions in general. A degree of torpor in the lower extremities is then observed, accompanied according to some writers, with a sense of



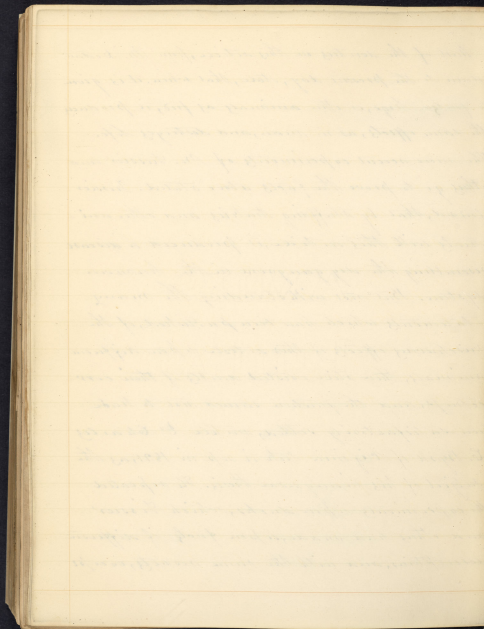
prickling, and of the creeping of insects upon the
skin: a slight degree of swelling, but without in-
flammation ensues, sometimes accompanied by
the most excruciating pain, and sense of burning
heat; generally however there is no pain, and
little uneasiness is felt in the part. These sym-
ptoms are soon succeeded by extreme edema, the
skin of the foot and legs becomes shrivelled
and of a dark hue, as if dried in smoke, and
afterwards black and destitute of feeling, in
fact the limb dies, or is gangrenous, but in
a dried state, which may be compared to
that of a mummy. By degrees the dead part
is separated by the abscesses from the living,
it requires amputation. In this mutilated
condition, deprived of one, sometimes of both
feet, more rarely of the hands, some individ-
uals have survived for months, or even years.

The deleterious effects of the Engrailed eye,
seem not to be confined to the human body.



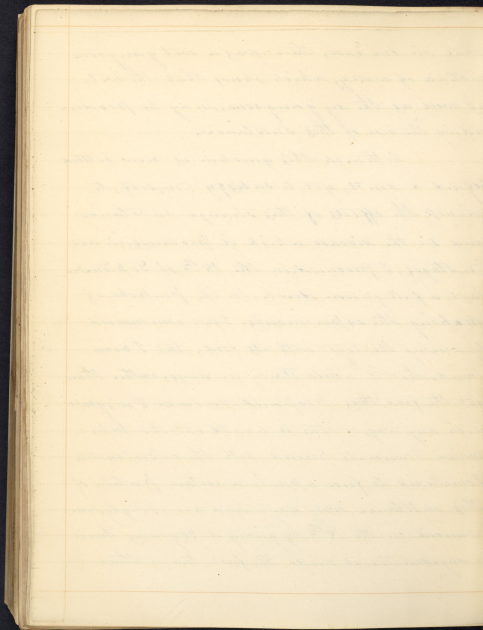
Most of the writers in this article, from Mr. Boerhaave down to the present day, state, that when it is given to fools, dogs, or other animals as food, it produces the same effects, as in man, and destroys life.

The more recent experiments of Mr. Tissier and others go to prove the facts above stated. Tissier found, that by stuffing turkeys and other animals with this article, it produced a disease resembling the dry gangrene in the human system. But not withstanding the many statements which had been published, of the mischievous effects of this article upon different animals, there still existed doubts of their correctness, and the question seemed not to have been satisfactorily settled, until Dr Charles E. Byrd of Virginia took it up in 1821, as the subject of his inaugural thesis. He repeated the experiments upon ducks, which Tissier and others had made, upon fowls of different descriptions, and with the same results, except

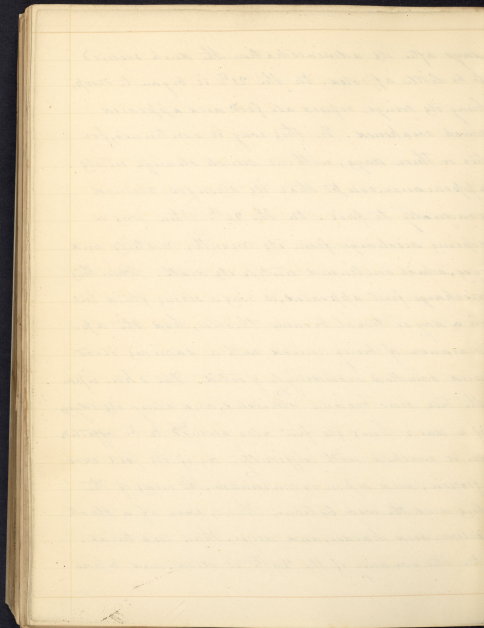


that in one case, there was a wet gangrene instead of a dry, which shows that the wet, as well as the dry gangrene, may be produced, by the use of this substance.

Although this question is now settled beyond a doubt, yet to satisfy myself, to witness the effects of this strange substance, and in the disease which it produces, in all its stages, I procured, on the 15th of September last, a full grown duck, for the purpose of making the experiments. I first commenced by mixing the sugar with its food, but I soon found, that it would starve for days, rather than eat the food thus prepared, nor could I disguise it, in any way, so that it would eat it. Determined however, to proceed with the experiments, I concluded to force upon it a certain portion of this substance every day, and accordingly commenced on the 18th by giving it 30 grains twice a day, until it died. The first time or three

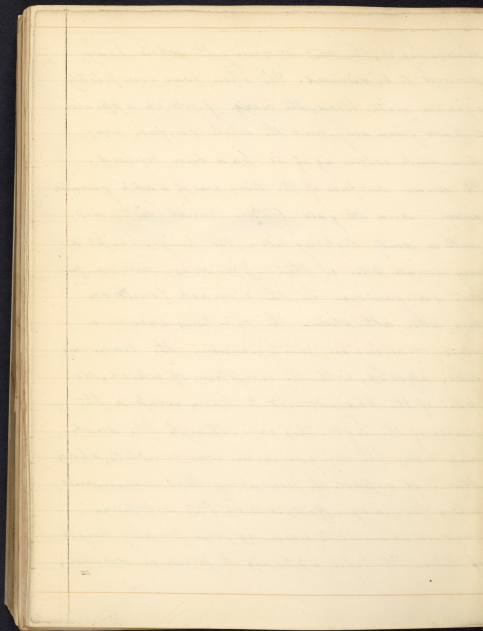


days after its administration the duck seemed to be little affected. On the 21st it began to droop, hung its wings, refused all food and appeared much weakened. In this way it continued, for two or three days, with out much change in its appearance, except that its strength seemed gradually to fail. On the 24th there was a copious discharge from its mouth, nostrils and eyes, which continued until its death. When this discharge first appeared, it was a serous fluid but in a day or two it became thicker, had the appearance of being mixed with a sanguous blood and smelled exceedingly fetid. The skin upon the bill now became shriveled, and along its edges of a dark blue, its feet also seemed to be affected, for it walked with difficulty, as if its feet were frozen, and upon examination, the ends of the toes and the web between them, were of a black colour, and harder, and dryer, than natural. On the evening of the 29th it died, and upon

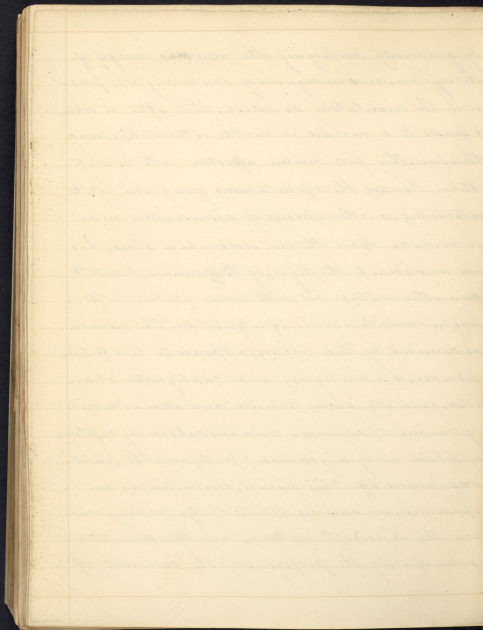


diseasing it, the next morning, the whole body
seemed to be diseased. The skin was completely
injected with blood, the vessels of which appeared
to have given way, and the whole surface was
of a dark colour as if it had been bruised.

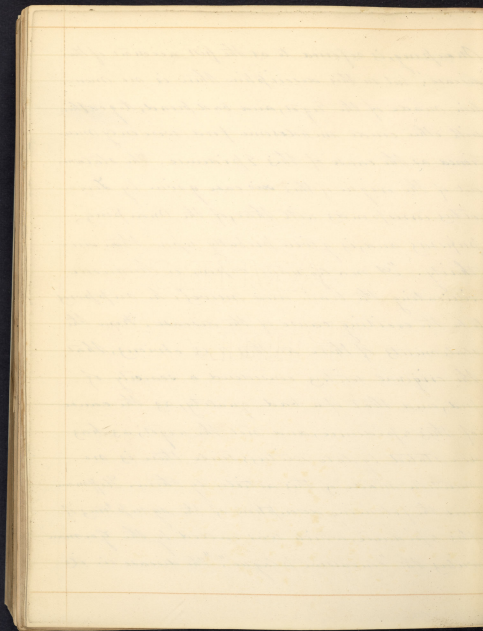
The under surface of the liver was of a dark greenish
colour - and the gall bladder much distended,
with a dirty looking bile. The lungs, except a
very small part of their upper ends, were comple-
tely gangrenous - in the stomach I could see
very little alteration - the intestines were in a
state bordering on mortification - the brain was
little affected, with the exception of which, no
part of the body, seemed to have escaped the
effects of the Eger. This case, though the duck
died before the dry gangrene was complete, shows
that it is capable of producing that disease, and
proves the deadly effects, which this substance
produces, when it is used as food for any length
of time. The Eger appears to produce disease,



by gradually destroying the nervous energy of the system, and consequently weakening the power of the circulation so much, that after a while, it ceases to be carried on in the extremities, and therefore, they first become affected with mortification. Besides the spontaneous gangrene of the extremities, another species of disease, even more formidable than the one described above, has been ascribed to the Egyptians, by Hoffmann, & some other writers, but with what justice or propriety, seems to admit of a question. The disease, as described by these writers, appears to be a febrile disorder, of a contagious and malignant character, generally accompanied and characterized by various spasmodic and convulsive symptoms, by which or by a general epilepsy, the patient was carried off. This disease, prevailed, as an epidemic, in various parts of Germany, during the 16th and 17th centuries and the description given of it, by the professors of the university of



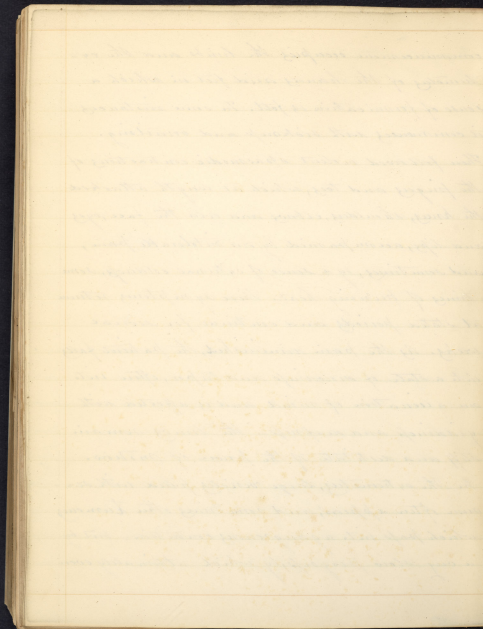
Mumps, is referred to as the first account of the disease, but in this description there is no mention made of the rigor, and bad bread, together with other crude and wholesome food were only mentioned as the cause of this epidemic. The statement of the origin of this disease given by Senatus corresponds with that of the Mumps, professing and is given probably upon their authority. "It on a ligament capum et humeros, irascit the brain and nerves", he supposes to be the exciting cause of the disease. From the statements of these authors it is obvious, that the original writers considered a scarcity of food, and that of a bad quality, as the cause of this epidemic, and not the rigor, as has been stated by late writers, since there is no mention made of this article by them. Hoffman gives the following description of the symptoms of this epidemic, which was called by the Germans writing the "convulsive plague". "The disease in its



commencement occupying the limbs and the ex-
tremities of the hands and feet in which a
sense of formication is felt. In some instances
it commences with sickness and vomiting.

Then followed violent spasmodic contractions of
the fingers and toes, which at length attacked
the knees, shoulders, elbows and even the face, eyes
and lips, accompanied by an intolerable pain,
and sometimes, by a sense of external coldness, some-
times of burning heat. These symptoms return
at stated periods and continue for several
weeks. As the pain diminished, the patient falls
into a state of morosity and torpor, often into
an alienation of mind and is affected with
giddiness and deafness - the limbs remain
stiff and destitute of the power of motion.

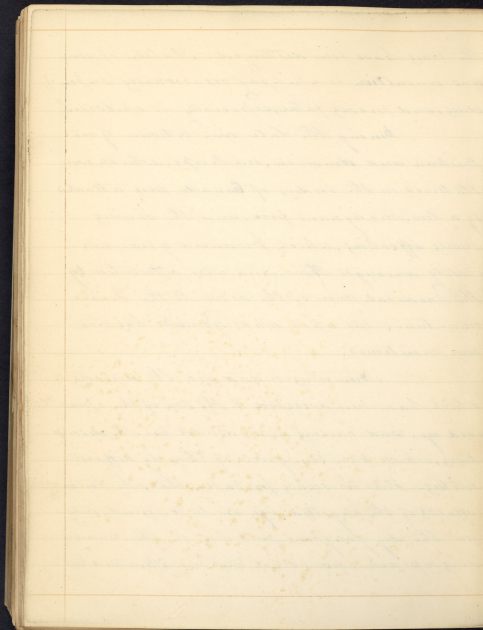
In the extremities, large vesicles filled with ser-
um often appear, and sometimes the tumours,
which pass into a gangrenous condition, but by
a very slow progress, by which ultimately even



the tones have been destroyed. A state of general convulsion or a palsy occasionally supervenes, and proves fatal, especially to children."

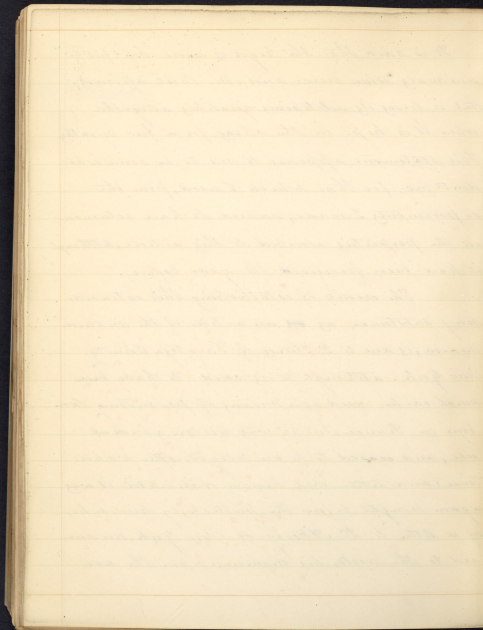
During the late war between Great Britain and America, our troops, which were stationed on the border of Canada were attacked by a low, malignant fever, and the various febrile affections, which produced great mortality amongst them, and were attributed by the medical men of the army to the local constitution; but upon what grounds has not been mentioned.

Amongst indeed are the diseases which have been ascribed to the use of the opium, and various and confused are the descriptions, which have been given of them by different writers— Still it seems probable, that, the true effects of the agitated eye are to be found only in the dry gangrene, and not in the numerous epidemic fevers which have been attributed to it.



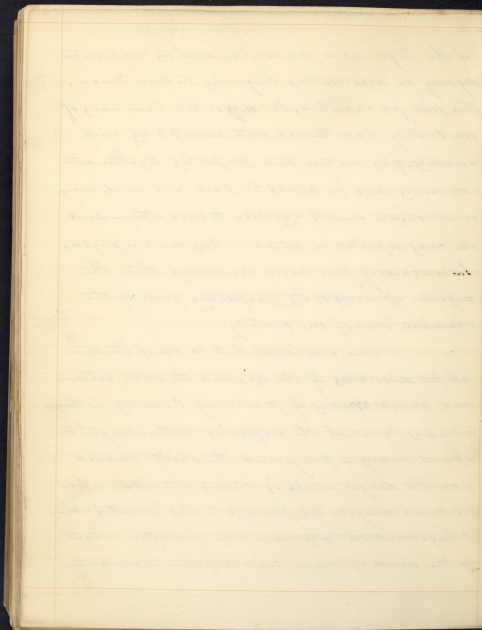
It is said that the Giga is more hurtful to animals when new; and Mr. Noel affirms, that it loses its deleterious qualities altogether when it is kept in the sheaf for a few months. This statement appears to me to be somewhat doubtful: for that which I used, from the experiment I made, seemed to have retained all the properties ascribed to this article, although it had been pressed the year before.

The credit of establishing this extraordinary substance as ~~an~~ one article of the Materia Medica, is due to Dr. Sturges of Saratoga County, New York: although it is said to have been much earlier used as a means of promoting labour in France: but it was not in general use, and ceased to be employed, after a short time; and little was known of it, until it was again brought before the publick, by him, who, in a letter to Dr. Sherby of New York, announced to the world, his inquiries upon the use



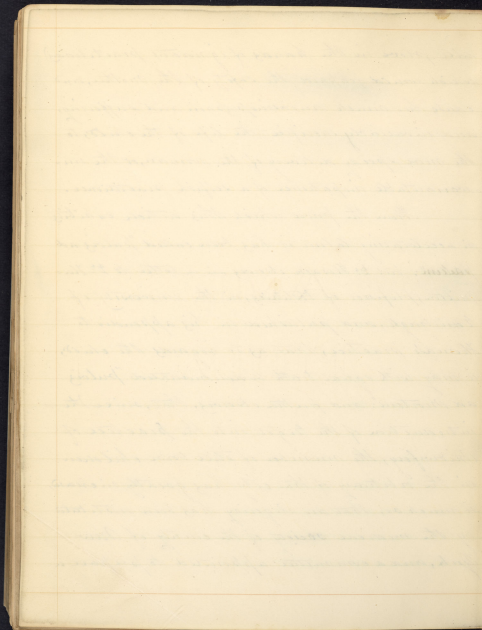
of the Egg as a medicine, and its wonderful
agency in accelerating lingering labour. Since
this first publication, the different Journals of
our country have teemed with descriptions and
accounts, of its nature and properties together with
numerous cases in which it had been used, many
of which, are exactly opposite to each other - and
the cases reported in which it has been employed,
have scarcely been more numerous than the
different opinions of its properties given by the
medical men of our country.

Some considered it to be one of the most
useful discoveries of the age, and the most certain
and prompt means of procuring lingering labours,
a means by which the suffering mother might be
spared many a pang, and the child rescued
from the danger which is always attendant upon
too much delay, in its passage to this "world of woe".
Others considered it as one which hereafter might
be the cause of much mischief: (as it evidently



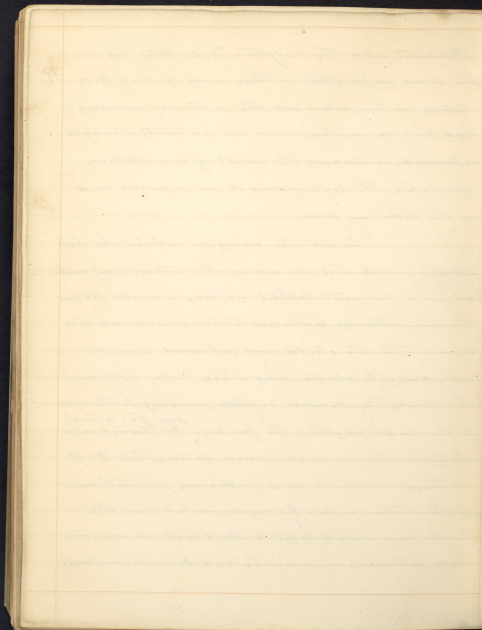
will prove in the hands of ignorant practitioners) which would jeopardise the safety of the mother, and cause her much unnecessary pain and suffering, and invariably sacrifice the life of the child, to the more speedy delivery of the woman, or the unwarrantable impatience of a selfish practitioner.

From the power which this article exhibits in accelerating labour it has been called "*pulvis ad partum*": but Dr. Hosack observes in a letter to Dr. Hays, professor of Obstetrics, in the University of Edinburgh, and published in his appendix to Thomas's practice, that as it regards the child, it may with equal truth be denominated "*pulvis ad mortem*": and further observes, that, since the introduction of the Ergot into the practice of Midwifery, the number of still born children in the Maternity of that city has greatly increased, so much so, that an inquiry has been instituted by the medical society of the county of New York, and a committee appointed to prepare a



statement upon this subject. He also tells us in
the same paper, that in three cases of long pro-
tracted labour, where all the ordinary resources
had been exhausted, and the patient's strength
suspended, he has, as the result of consultation,
prescribed the Ergot, giving it in infusion and
in the ordinary dose.

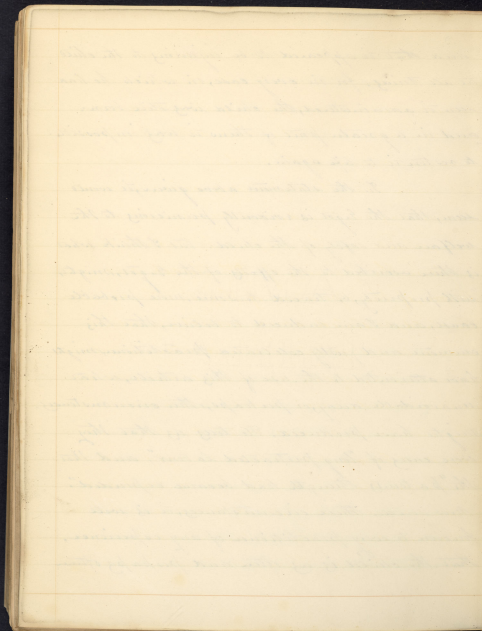
In all the cases in which he had
administered this medicine, the uterus was cal-
led in to the most violent action, in about fifteen
minutes after its administration which did not
cease until the child was delivered and in
every case, the child was still born, "although"
he knows "no evidence existed previous to the use
of the medicine, that the foetus ^{was yet alive}, Dr. Hosack also
states, in the same communication, that Dr. W.
Brook, an eminent and judicious practitioner
of the State of New York, remarked that the
Ergot had proved fatal to the child in almost
every instance, in which it had been prescribed,



and that it appeared to be injurious to the child
at all thing. for in every case, in which he had
seen it administered, the child was still born,
and in a greater part of them it was impossible
to restore it to life again.

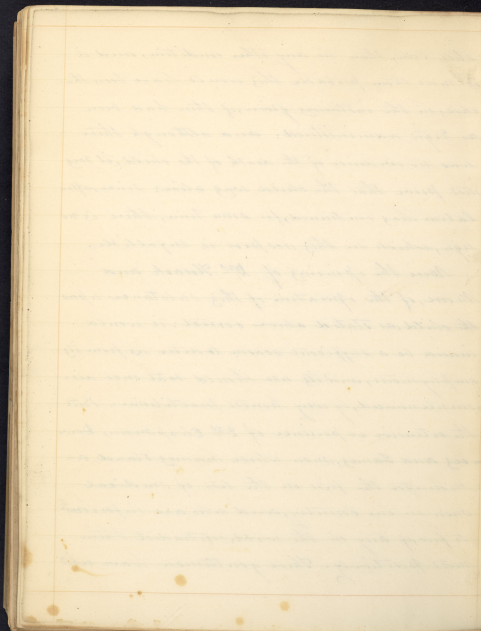
In the statement above given, it would
seem, that the Leger is evidently perceiving to the
wellfare and safety of the child. but I think what
is there ascribed to the effects of the Leger, might,
with propriety, be traced to some more probable
cause, and I am induced to believe, that this
eminent and justly celebrated practitioner, might
have attributed to the use of this article, what
unavoidable decay, or perhaps, other circumstances
might have produced. He tells us that they
were cases of "long protracted labours", and that
the "parturient strength had become expended".

Now under these circumstances, it is well
known to every practitioner of any experience,
that the child is as often and perhaps oftener



still born, than in any other condition, and it is more than probable this would have been the case, in the instances given, if there had been no Eger administered: and although there was no evidence of the death of the child, it may not prove that the child was alive: since, after labour has continued, for some time, there is no sign, which in this respect is infallible.

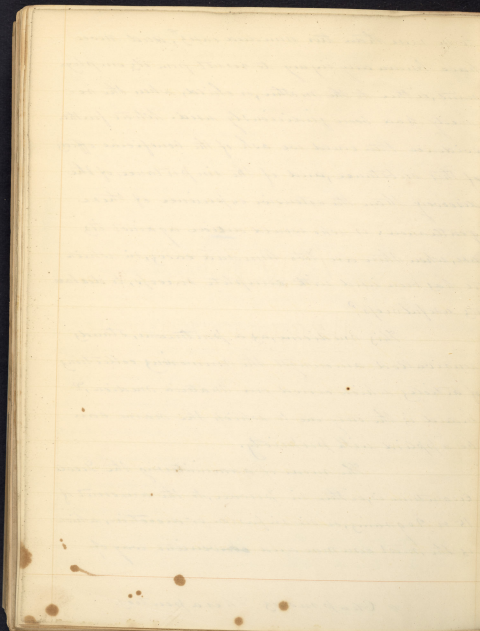
Now the opinions of Dr. Hosack and Moore, of the operation of this substance upon the child, as stated above correct: it would indeed be a sufficient reason to deter us from its employment, and its use should be at once discontinued, by every honest practitioner. But the extensive experience of Dr. Chapmann, Dewees and Lamez, men whose names stand as monuments the first on the list of medical men in our country, and who are inferior to few, if any in the world, contradict them most positively. These gentlemen have used



in more than two hundred cases, and none
have known any injury to result from its employ-
ment, either to the mother, or child, when the re-
medy had been judiciously used. What further
evidence then could we ask of the beneficial effects
of this substance, and of the importance of the
discovery than the extensive experience of these
gentlemen, or who would doubt against its
use, when there are two hundred cases, in which
it has been used with complete success, to declare
its usefulness?

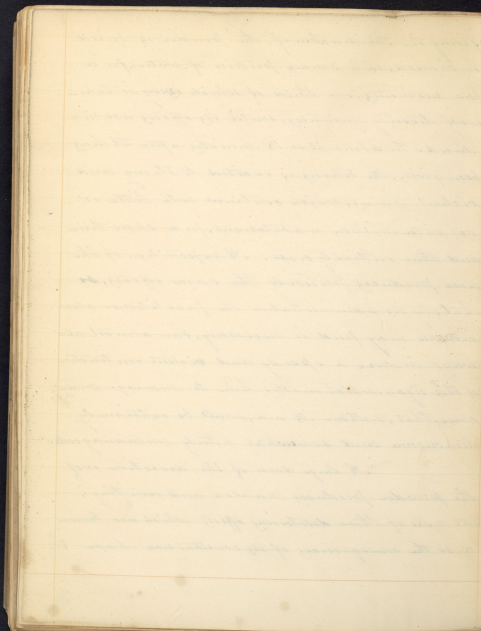
This medicine, as a parturient, stands
unsurpassed amongst the numerous collection
of articles which crowd our Materia Medica, &
indeed is the only one to which the name can
be applied with propriety.

The mode of administering the Geol.
Eucanthum is, either in powder, to the amount of
15 or 20 grains, or in infusion, or decoction, which
is the most common and convenient way of



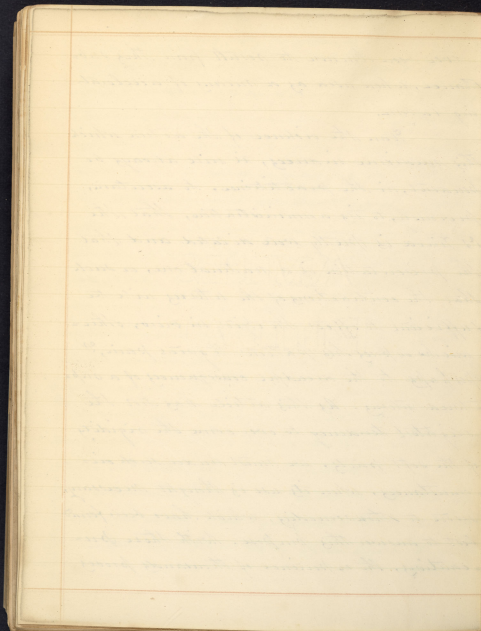
giving it. One drachm of the powder is mixed or infused, in a small portion of water, for a few moments, one third of which may be taken every twenty minutes, until its effects are induced. In about 10 or 15 minutes after it has been given, the uterus is excited to strong and violent pains, which continue with little or no intermission or abatement, for a short time and then entirely cease. A repetition of the dose produces precisely the same effects, so that, by its administration the practitioner whenever he may find it necessary, can almost always induce a speedy and violent contraction of this organ, which enables him to manage many cases, that, without its aid, would be extremely troublesome and somewhat utterly unmanageable.

A large dose of the decoction or of the powder produces nausea and vomiting; but none of those deleterious effects which are known to be the consequences of its constant use have



ever been known to result from this substance, when used as a means of accelerating labour.

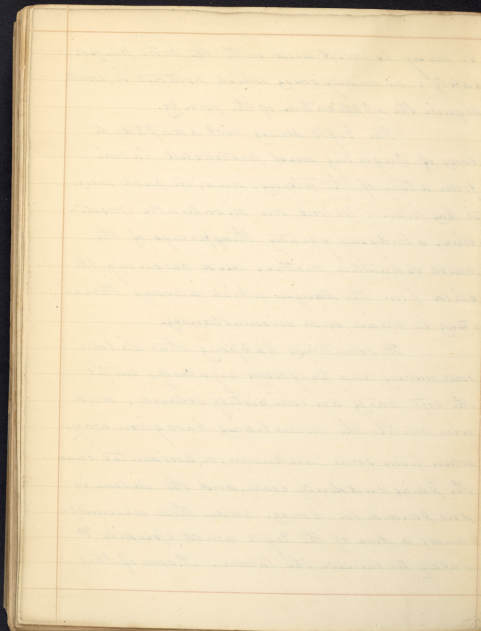
From the violence of the action which this medicine induces, it will always be prudent, in the practitioner, to ascertain, previously, to its administration, that the Uterus is pretty well dilated and that the presentation is a natural one, or such that the contractions of the uterus will be sufficient to effect the object in view; otherwise he exposes his patient to great pain, & perhaps to the dreadful consequence of a ruptured uterus. As this article has not the slightest tendency to overcome the rigidity of the soft parts, we must annex such circumstances, when its use is thought necessary, as are to this remedy, which have been found best to answer this purpose. With these precautions, the experience of thousands proves



it may be used and with the most perfect safety, in many cases which without it would require the application of the forceps.

The Ergot seems best adapted to cases of lingering and protracted labour from atony of the uterus, and, in such cases, it has indeed proved an invaluable medicine, a bridging greatly the sufferings of the much exhausted mother, and rescuing the child from the danger which always threatens it under such circumstances.

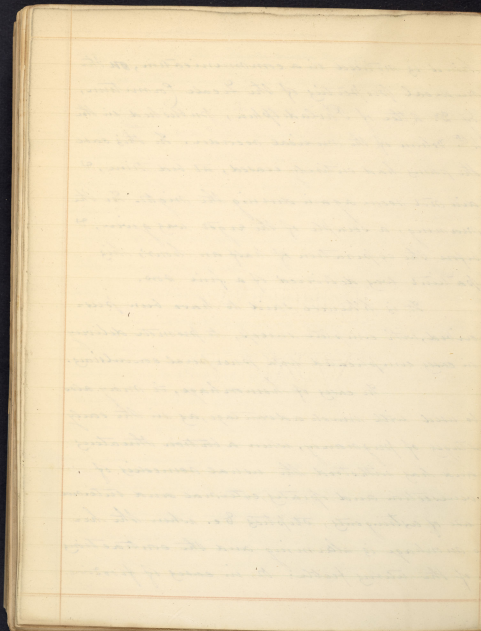
It sometimes happens that labour commences and progresses regularly, until the soft parts are completely relaxed, and even until the membranes have given way, when from some unknown, or accidental cause the pains suddenly cease, and the labour is suspended for hours. Under these circumstances a dose of the Ergot would speedily & safely terminate the labour. A case of this



kind is noticed in a communication, on the
medical properties of the Lacle Formium,
by Dr. Aitken of Philadelphia, published in the
4th Volume of the Medical Recorder. In this case
the pains had entirely ceased, at bed time, &
did not recur again during the night. In the
morning, a scruple of the rect. was given, &
before the expiration of half an hour, his
patient was delivered of a fine son.

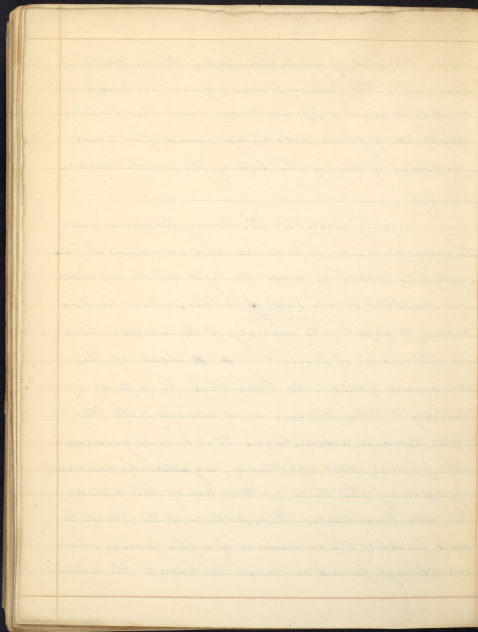
It is likewise said to have been pro-
-ved, with complete success, to promote delivery
in cases complicated with puerperal convulsions.

In cases of hemorrhage, it may also
be used with much advantage, as in the early
stages of pregnancy, when a abortion threatens
and has withstood the usual remedies of
venesection and opiates, external and internal
use of astringents, styptics &c. when the he-
-morrhage is alarming and the contractions
of the uterus feeble: Or, in cases of flooding.



near the end of gestation, when the contractions
have either not taken place, or are too weak to
be effectual, it appears to me that this medicine
might be of great advantage, and often times,
the means of saving the life of the unfortunate
woman.

My preceptor Dr. Henry Boteler a gen-
tleman of much experience and soundness of jud-
-gement, who has seen the light in many cases,
told me, that in all cases of labour, when he has
season to expect ^{having after} the delivery of the child, he is
in the habit of prescribing a ~~a~~ dose of this
medicine just at the time that he expects
delivery to take place, and always with the
most decided advantage. It not only guards
the patient most effectually, against hemorrhage,
by ensuring the timely contraction of the uterus,
but also facilitates the expulsion of the placenta
and prevents the occurrence of after pains, which
are always found so much to harass the woman.



when the contracting of this organ are weak.

There is a peculiar condition of the uterus, which, although it is of rare occurrence, has not escaped the notice of Mr. Benony and other eminent accoucheurs. It is a torpor of this organ after a difficult labour, preventing the contracting of its fibers, the womb remaining for hours, or even days, nearly as much distended, as at the full time of gestation, feeling very hard through the parities of the abdomen and attended with a pain resembling cramp. In this case, the power of the uterus appear to be completely exhausted, and some artificial stimulus is required to recall or renew them again. For this purpose, there is no article which acts so promptly and powerfully as the ergot, and, in this case (in my humble opinion) no plan of treatment seems to promise more and would succeed better than a dose of this medicine.

An excessive discharge of Lochia is now known to be owing to an imperfect closure of the vessels of the uterus, which were connected with the placenta, and this state of the vessels is always attendant upon a want of power in the viscus: would it not then, under such circumstances, be advantageous, occasionally, to make use of this article?

From the specific action which the *Local Permutum* exercises over the uterus, it was thought, when it was first brought into public notice, that it promised much as an emmenagogue, but subsequent experience has proved, that, little can be expected from it, as a medicine of this class. *Amenorrhoea dependens* upon a "wrong or perverted action of the uterus," generally slowly induced, to remove which, the remedy used should act gradually, steadily and powerfully upon the viscus. But the agent is not an article of this nature. It

The present state of the
country is such that it is
impossible to say whether
it is better or worse than
it was in the year 1790.
The only thing that is
certain is that the
population has increased
very much since that
time. The number of
inhabitants in the
country is now about
1,000,000. This is a
great increase compared
with the number in
1790, which was only
about 500,000. The
reason for this increase
is the discovery of
gold in California.
This discovery has
attracted a great many
people to the country,
and has caused a great
increase in the
population. The
country is now a
greatly improved
state, and it is
certain that it will
continue to improve
in the future.

effects are speedily induced and as quickly
pass off, consequently it is illly suited to this case.
In Dysmenorrhoea however from the powerful
action which it exerts in the uterus it is said
to have proved useful in expelling the decidua
membrana, which always accompanies this
disease and occasions so much suffering before
it is discharged when the action of the uterus
is unassisted.

So powerful are the actions of
the uterus which this substance induces,
that when given to pregnant animals, it
is said to produce a labour, in a very short
time, and it has been thought that it may
and perhaps has been used in cases of illicit
pregnancies, where ~~where~~ a labour is desired, in
order to hide from the world, the crime of
an indulgence, which the present state
of society has forbidden.

Although this substance induces such

powerful actions in the pregnant uterus
as to expel its contents before its usual time.
yet I have been told by a medical gentleman
of my acquaintance, who had made the
experiment, that, when given to an unimpreg-
-nated female, it produced no other effect,
than a slight increase about the region
of the uterus. In the male, its effects are
scarcely perceptible. To ascertain this fact,
on the 6th of October I made a strong decoction
of thirty grains of the Ergot, one half of
which I took, and finding that it had
no effect, in 20 minutes time, I took the
other. It produced no effect whatever, except
a slight nausea. The pulse was not affected
in the slightest degree, nor was there any
change in the state of the system, that
I could perceive.

Finis.

